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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,379	03/10/2004	Carolyn Taylor	CS23811RL	3235
20280	7590	10/02/2007		
MOTOROLA INC 600 NORTH US HIGHWAY 45 W4 - 39Q LIBERTYVILLE, IL 60048-5343			EXAMINER KAO, WEI PO ERIC	
			ART UNIT	PAPER NUMBER
			2616	
			MAIL DATE	DELIVERY MODE
			10/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/797,379

Applicant(s)

TAYLOR ET AL.

Examiner

Wei-po Kao

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/10/2004, 06/09/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejection - 35 USC § 103

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 and 5-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura et al, U.S. Patent No 7263064 in view of Cucchi et al, U.S. Patent No 5228028.

Regarding Claims 1, 8, Yoshimura et al teach that **a method in a packet switched data transfer system for processing a frame of bits, the method comprising** (see Abstract, Figures 3, 10): **classifying a frame of bits into a first predetermined class of bits and into a second predetermined class of bits** (see Column 3 Line 63-67, Column 4 Line 1-4); **processing the first predetermined class of bits in accordance with a first predetermined mechanism; and processing the second predetermined class of bits in accordance with a second predetermined mechanism** (see Column 4 Line 4-10, Column 6 Line 48-55, Column 9 Line 54-67). However, for Claims 1, 8, Yoshimura et al do not teach that **header and payload bits of a frame of bits are classified and processed accordingly**. For Claims 1, 8, Cucchi et al teach that **header and payload bits of a frame of bits are classified and processed accordingly** (see

Abstract Line 8-11, Figure 1a, Column 5 Line 23-31, Column 6 Line 14-21). Yoshimura et al and Cucchi et al are analogous art because they are from same field of endeavor. At the time of the invention, it would have been obvious to a person ordinary skill in the art to incorporate Cucchi's classification and encoding scheme with Yoshimura's invention to process different type of data packets at different level of detail. The rationale to combine would have been that it is desired to transmit not only voice but also video data over wired/wireless packet oriented communication network with less error and guaranteed service qualities. It would have been obvious to combine Yoshimura et al and Cucchi et al to obtain the limitations of claims 1 and 8.

Regarding Claims 2 and 9, Yoshimura et al and Cucchi et al teach all the limitations in claims 1 and 8 as disclosed in this paragraph except that **the method, further comprising: constructing a new frame of bits based upon the processed first predetermined class of bits and the processed second predetermined class of bits.** For Claims 2 and 9, Cucchi et al teach that **the method, further comprising: constructing a new frame of bits based upon the processed first predetermined class of bits and the processed second predetermined class of bits** (see Column 5 Line 4-8, Column 6 Line 14-35). Yoshimura et al and Cucchi et al are analogous art because they are from same field of endeavor. At the time of the invention, it would have been obvious to a person ordinary skill in the art to incorporate Cucchi's classification and encoding scheme with Yoshimura's invention to process different type of data packets at different level of detail. The rationale to combine would have been that it is desired to limit and locate the packet lose. It would have been obvious to combine Yoshimura et al and Cucchi et al to obtain the limitations of claims 2 and 9.

Regarding Claim 5, Yoshimura et al and Cucchi et al teach all the limitations in claim 1 as disclosed in this paragraph except that **the method of, wherein processing the first/second predetermined class of bits in accordance with the first/second predetermined mechanism includes grouping the first/second predetermined class of bits.** For Claim 5, Yoshimura et al teach that **the method of, wherein processing the first/second predetermined class of bits in accordance with the first/second predetermined mechanism includes grouping the first/second predetermined class of bits** (see Column 3 Line 27-42).

Regarding Claims 6 and 10, Yoshimura et al teach that **the method of, further comprising: grouping the processed first predetermined class of bits; grouping the processed second predetermined class of bits** (see Column 3 Line 27-42). However, for Claims 6, 10, Yoshimura et al do not teach that **constructing a new frame of bits based upon the grouped-processed first predetermined class of bits and the grouped-processed second predetermined class of bits.** For Claims 6, 10, Cucchi et al teach that **the method, further comprising: constructing a new frame of bits based upon the processed first predetermined class of bits and the processed second predetermined class of bits** (see Column 5 Line 4-8, Column 6 Line 14-35). Yoshimura et al and Cucchi et al are analogous art because they are from same field of endeavor. At the time of the invention, it would have been obvious to a person ordinary skill in the art to incorporate Cucchi's classification and encoding scheme with Yoshimura's invention to process different type of data packets at different level of detail. The rationale to combine would have

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been that it is desired to limit and locate the packet lose. It would have been obvious to combine Yoshimura et al and Cucchi et al to obtain the limitations of claims 6 and 10.

Regarding Claim 7, Yoshimura et al and Cucchi et al teach all the limitations in claims 1 and 8 as disclosed in this paragraph except that **the method, wherein the first predetermined mechanism includes applying a first error protection algorithm, and the second predetermined mechanism includes applying a second error protection algorithm.** For Claim 7, Cucchi et al teach that **the method, wherein the first predetermined mechanism includes applying a first error protection algorithm, and the second predetermined mechanism includes applying a second error protection algorithm** (see Abstract Line 12-16, Column 6 Line 7-11). Yoshimura et al and Cucchi et al are analogous art because they are from same field of endeavor. At the time of the invention, it would have been obvious to a person ordinary skill in the art to incorporate Cucchi's classification and encoding scheme with Yoshimura's invention to process different type of data packets at different level of detail. The rationale to combine would have been that it is desired to apply different error protection to different types of data to further improve the quality insurance of different data. It would have been obvious to combine Yoshimura et al and Cucchi et al to obtain the limitations of claim 7.

Regarding Claim 11, Yoshimura et al and Cucchi et al teach all the limitations in claim 8 as disclosed in this paragraph except that **the method of, wherein the first predetermined encoding process has a first coding rate greater than a second coding rate of the second predetermined encoding proces.** For Claim 11, Cucchi et al teach that **the method of, wherein**

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the first predetermined encoding process has a first coding rate greater than a second coding rate of the second predetermined encoding process (see Column 5 Line 23-39 54-60).

Yoshimura et al and Cucchi et al are analogous art because they are from same field of endeavor.

At the time of the invention, it would have been obvious to a person ordinary skill in the art to incorporate Cucchi's classification and encoding scheme with Yoshimura's invention to process different type of data packets at different level of detail. The rationale to combine would have been that with specific encoding rate for specific data, the correctness of data produce is better maintained than applying only one encoding rate to various types of data. It would have been obvious to combine Yoshimura et al and Cucchi et al to obtain the limitations of claim 11.

Regrading Claim 12, Yoshimura et al teach that **a method in a packet switched data transfer system for processing a frame of bits, the method comprising (see Abstract, Figures 3, 10): classifying a frame of bits into a first predetermined class of bits and into a second predetermined class of bits (see Column 3 Line 63-67, Column 4 Line 1-4); grouping the first predetermined class of bits; and grouping the second predetermined class of bits (see Column 3 Line 27-42). However, for Claim 12, Yoshimura et al do not teach that header and payload bits of a frame of bits are classified and processed accordingly; constructing a new frame of bits based upon the grouped first predetermined class of bits and the grouped second predetermined class of bits. For Claim 12, Cucchi et al teach that header and payload bits of a frame of bits are classified and processed accordingly (see Abstract Line 8-11, Figure 1a, Column 5 Line 23-31, Column 6 Line 14-21); constructing a new frame of bits based upon the grouped first predetermined class of bits and the grouped second**

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predetermined class of bits (see Column 5 Line 4-8, Column 6 Line 14-35). Yoshimura et al and Cucchi et al are analogous art because they are from same field of endeavor. At the time of the invention, it would have been obvious to a person ordinary skill in the art to incorporate Cucchi's classification and encoding scheme with Yoshimura's invention to process different type of data packets at different level of detail. The rationale to combine would have been that it is desired to limit and locate the packet lose. It would have been obvious to combine Yoshimura et al and Cucchi et al to obtain the limitations of claim 12.

Regarding Claim 13, Yoshimura et al teach that **the method of, further comprising: before constructing a reformatted frame, encoding the grouped first predetermined class of bits with a first predetermined algorithm; and encoding the grouped second predetermined class of bits with a second predetermined algorithm** (see Column 4 Line 4-10, Column 6 Line 48-55, Column 9 Line 54-67). However, for Claim 13, Yoshimura et al do not teach that **wherein constructing a reformatted frame includes constructing a reformatted frame using the encoded grouped first predetermined class of bits and the encoded grouped second predetermined class of bits**. For Claim 13, Cucchi et al teach that **wherein constructing a reformatted frame includes constructing a reformatted frame using the encoded grouped first predetermined class of bits and the encoded grouped second predetermined class of bits** (see Column 5 Line 4-8, Column 6 Line 14-35). Yoshimura et al and Cucchi et al are analogous art because they are from same field of endeavor. At the time of the invention, it would have been obvious to a person ordinary skill in the art to incorporate Cucchi's classification and encoding scheme with Yoshimura's invention to process different type of data

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packets at different level of detail. The rationale to combine would have been that with specific encoding rate for specific data, the correctness of data produce is better maintained than applying only one encoding rate to various types of data. It would have been obvious to combine Yoshimura et al and Cucchi et al to obtain the limitations of claim 13.

Regarding Claim 14, Yoshimura et al and Cucchi et al teach all the limitations in claim 12 as disclosed in this paragraph except that **the method, wherein the first predetermined algorithm has a first coding rate greater than a second coding rate of the second predetermined algorithm**. For Claim 14, Cucchi et al teach that **the method, wherein the first predetermined algorithm has a first coding rate greater than a second coding rate of the second predetermined algorithm** (see Column 5 Line 23-39 54-60). Yoshimura et al and Cucchi et al are analogous art because they are from same field of endeavor. At the time of the invention, it would have been obvious to a person ordinary skill in the art to incorporate Cucchi's classification and encoding scheme with Yoshimura's invention to process different type of data packets at different level of detail. The rationale to combine would have been that with specific encoding rate for specific data, the correctness of data produce is better maintained than applying only one encoding rate to various types of data. It would have been obvious to combine Yoshimura et al and Cucchi et al to obtain the limitations of claim 14.

Claims 15-19 are apparatus claims corresponding to method claims 1-4 and 11 and therefore rejected under the same reason set forth in this paragraph.

Therefore, it would have been obvious to combine Yoshimura et al and Cucchi et al to obtain the claims 1-2 and 5-19.

4. Claims 3 and 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura et al, U.S. Patent No 7263064 and Cucchi et al; U.S. Patent No 5228028 as applied to claim 1 above, and further in view of Kloth U.S. Patent No 6598034.

Regarding Claim 3 and 4, Yoshimura et al and Cucchi et al all limitations of claim 1 as disclose in the paragraph 3 of this office action except that **the method, wherein: classifying the data bits into the first predetermined class of bits and into the second predetermined class of bits includes classifying data bits based upon a location of the data bits in the frame of bits; and classifying the data bits into the first predetermined class of bits and into the second predetermined class of bits includes classifying the data bits based upon pre-assigned weight of the data bits in the frame of bits.** For Claims 3 and 4, Kloth teaches that **the method, wherein: classifying the data bits into the first predetermined class of bits and into the second predetermined class of bits includes classifying data bits based upon a location of the data bits in the frame of bits (see Abstract, Column 4 Line 27-61, Column 9 Line 59-67, Column 10 Line 1-9); and classifying the data bits into the first predetermined class of bits and into the second predetermined class of bits includes classifying the data bits based upon pre-assigned weight of the data bits in the frame of bits (see Abstract, Column 4 Line 27-61, Column 9 Line 59-67, Column 10 Line 1-9 13-16 i.e. it is convention in the art that higher priority packet is assigned higher weight).**

Yoshimura et al, Cucchi et al and Kloth are analogous art because they are from the same field of endeavor.

At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement Kloth's classification and processing rule to further aid the invention of Yoshimura's.

The rationale would have been that it is desired to have user-defined rules to classify various types of data packet which yields flexibility in controlling data flow.

Therefore, it would have been obvious to combine Yoshimura et al, Cucchi et al and Kloth to obtain the claims 3 and 4.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Khosravi et al, U.S. Publication No 20040100908, Sarkinen et al, U.S. Publication No 20020163909, Cox et al, U.S. Publication No 20030123452, Riddle et al, U.S. Patent No 6591299, Xu et al, U.S. Patent No 6885638 and Ma et al, U.S. Patent No 6798743, are cited to show a similar method and system to classify and process data bits.

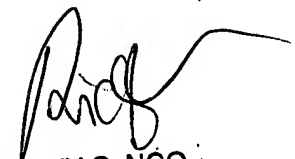
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wei-po Kao whose telephone number is (571)270-3128. The examiner can normally be reached on Monday through Friday, 8:30AM to 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

W.K.



RICKY Q. NGO
SUPERVISORY PATENT EXAMINER